

REMARKS

Applicant requests favorable reconsideration of this application in view of the foregoing amendments and the following remarks. Claims 1-20 were pending in the application and were rejected in the Office Action. By way of this amendment and without adding new matter, Applicant has: (a) amended claims 1-7 and 9-20; (b) canceled claim 8, as it is duplicative of amended claim 3; and (c) added new dependent claims 21-26. Accordingly, claims 1-7 and 9-26 are respectfully presented for further consideration.

1. Rejection of Claims 3-5 under 35 U.S.C. § 112, ¶ 1

The Examiner rejected claims 3-5 under 35 U.S.C. § 112, ¶ 1 as allegedly “failing to comply with the enablement requirement,” as a result of claim 3 depending from claim 2. Applicant respectfully submits that this rejection is now moot as a result of the amendments made herein to claims 3-5. Accordingly, a withdrawal of this rejection is both warranted and respectfully requested.

2. Rejection of Claims 7, 10, 14, and 16-20 under 35 U.S.C. § 112, ¶ 2

The Examiner rejected claims 7, 10, 14, and 16-20 under 35 U.S.C. § 112, ¶ 2 as allegedly being indefinite. Applicant respectfully submits that this rejection is now moot as a result of the amendments made herein to claims 7, 10, 14, and 16-20.

In addition, with respect to claim 20, Applicant notes that the allegedly confusing limitation is identical to a corresponding limitation originally in claims 1 and 14. As the Examiner did not object to the limitation in claims 1 and 14, Applicant assumes that the confusion was likely caused by the PTO’s improper publication of claim 20, which publication separated this limitation from the electromagnetic valve unit.

In light of the foregoing, a withdrawal of this rejection is both warranted and respectfully requested.

3. Rejections of Claims 1, 2, and 6-20 under 35 U.S.C. §§ 102(b), 103(a)

The Examiner rejected:

- (a) claims 1, 8-11, 14, and 20 under 35 U.S.C. § 102(b) as allegedly being anticipated by WO 00/70628 (“Heise”);
- (b) claims 1, 8-11, and 14 under 35 U.S.C. § 103(a) as allegedly being obvious when considering U.S. Patent No. 5,458,150 (“Tamaoki”) in view of Heise;

- (c) claims 2, 6, 7, 12, 13, and 15 under 35 U.S.C. § 103(a) as allegedly being obvious when considering Heise in view of U.S. Patent No. 5,842,763 (“Staib”); and
- (d) claims 2, 6, 7, 12, 13, and 15-19 under 35 U.S.C. § 103(a) as allegedly being obvious when considering Tamaoki in view of Heise and further in view of Staib.

Preliminarily, the aforementioned rejections of claim 8 are now moot due to the cancellation herein of claim 8. Accordingly, the rejections will be addressed, and respectfully traversed, with respect to claims 1-7 and 9-20.

A. Claims 1-7 and 9-13

As amended herein, claim 1 (*i.e.*, the claim from which claims 2-7 and 9-13 depend) recites an electromagnetic valve unit. The electromagnetic valve unit includes, among other possible things (*italic emphasis added*):

a yoke of magnetic metal, the yoke comprising upper and lower walls that are integrally connected by side walls;
a slit provided in the upper wall of the yoke, the slit extending along a longitudinal axis of the yoke between axially opposed ends of the yoke; and
a plurality of electromagnetic valves abreast installed in the yoke in such a manner that the yoke constitutes outside magnetic paths of solenoid coils of the valves,
wherein each solenoid coil has terminal members that project outward from the yoke through the slit, and
wherein the terminal members of every pair of the electromagnetic valves, which face each other with respect to the longitudinal axis of the yoke, are arranged close to one another and face one another.

As hereafter explained, no combination of Heise, Tamaoki, and Staib teaches or suggests such an electromagnetic valve unit.

In the described embodiments of the instant invention, the terminal pins 8, which extend from the projections 30, of each pair of electromagnetic valves 2 “face each other” and are generally provided “close to one another” within a common slit 19 in the upper wall 18 of the yoke 3, as shown in Figs. 1, 5, and 8. In contrast to the instantly recited invention, none of Heise, Tamaoki, and Staib teaches or suggests the above-italicized slit and terminal pins.

Heise: Although Heise teaches a sleeve body 2 (which houses an electromagnet 5) and that two such sleeve bodies 2 are placed side-by-side in a structure 7 (such that what

appears¹ to be terminal pins 8 face each other), the upper wall (unnumbered) of such structure 7 does not comprise a slit through which the terminal pins 8 upwardly extend and face each other. Rather, the only slits through which the terminal pins 8 extend are provided in the sleeve bodies 2, not the housing 7. In other words, although the terminal pins 8 may face each other, they do not face each other while upwardly extending through a common slit in an upper wall of a yoke (*i.e.*, the housing 7).

Tamaoki: Although Tamaoki teaches a pair of valves 2A, 3A and a yoke 5, the yoke lacks 5 an upper wall that has a slit through which terminal members of the valves 2A, 3A upwardly extend, as shown in Figs. 1 and 2. Rather, as clearly shown in Fig. 2, each of the valves 2A, 3A extends through a different bore in an upper wall of the yoke 5.

Staib: Although Staib teaches a spring element 23, Staib clearly lacks a yoke that has an upper wall that, in turn, has a slit through which the terminal members of a pair of facing electromagnetic valves upwardly extend.

For at least the aforementioned reasons Heise, Tamaoki, and Staib (standing alone or combined), fail to teach or suggest at least the above-italicized limitations of claim 1. Accordingly, no combination of Heise, Tamaoki, and Staib can be used to reject claim 1, or any claim dependent thereon, under 35 U.S.C. §§ 102(b), 103(a). Moreover, as claims 2-7 and 9-13 depend from claim 1, each of these dependent claims is also allowable over Heise, Tamaoki, and Staib, without regard to the other patentable limitations recited therein. Therefore, a withdrawal of the rejections of claims 1-7 and 9-13 under §§ 102(b), 103(a) is both warranted and earnestly solicited.

B. Claims 14-19

As amended herein, claim 14 (*i.e.*, the claim from which claims 15-19 depend) recites an electromagnetic valve unit. The electromagnetic valve unit includes, among other possible things (*italic emphasis added*):

- a yoke of magnetic metal, the yoke comprising upper and lower walls that are integrally connected by side walls;
- a slit provided in the upper wall of the yoke*, the slit extending along a longitudinal axis of the yoke between axially opposed ends of the yoke; and
- a plurality of electromagnetic valves abreast installed in the yoke in such a manner that the yoke constitutes outside magnetic paths of solenoid coils of the valves,

¹ Applicant has not obtained a translation of Heise's German text.

wherein each solenoid coil has terminal members that project outward from the yoke through the slit,

wherein the solenoid coils of the electromagnetic valves are arranged along the longitudinal axis forming a given number of pairs of the coils along the longitudinal axis,

wherein the terminal members of every pair of the electromagnetic valves, which face each other with respect to the longitudinal axis of the yoke, are arranged close to one another and face one another.

As hereafter explained, no combination of Heise, Tamaoki, and Staib teaches or suggests such an electromagnetic valve unit.

As previously discussed with respect to claim 1, Heise, Tamaoki, and Staib fail to teach or suggest terminal members of every pair of the electromagnetic valves that: (a) upwardly extend through a common slit in an upper wall of a yoke; (b) “face each other with respect to the longitudinal axis of the yoke”; and (c) “are arranged close to one another and face one another.” As claim 14 also recites these limitations, the aforementioned arguments that were previously set forth with respect to claim 1 are equally applicable to claim 14.

For at least the aforementioned reasons Heise, Tamaoki, and Staib (standing alone or combined), fail to teach or suggest at least the above-italicized limitations of claim 14. Accordingly, no combination of Heise, Tamaoki, and Staib can be used to reject claim 14, or any claim dependent thereon, under 35 U.S.C. §§ 102(b), 103(a). Moreover, as claims 15-19 depend from claim 14, each of these dependent claims is also allowable over Heise, Tamaoki, and Staib, without regard to the other patentable limitations recited therein. Therefore, a withdrawal of the rejections of claims 14-19 under §§ 102(b), 103(a) is both warranted and earnestly solicited.

C. Claim 20

As amended herein, claim 20 recites an antilock brake system for a wheeled motor vehicle. The antilock brake system includes, among other possible things (*italic emphasis added*):

a fluid line extending between a master cylinder of a brake pedal and brake cylinders of road wheels; and

an electromagnetic valve unit arranged in the fluid line to selectively open and close the passage of the fluid line, the electromagnetic valve unit comprising:

a yoke of magnetic metal, the yoke comprising upper and lower walls that are integrally connected by side walls;

a slit provided in the upper wall of the yoke, the slit extending along a longitudinal axis of the yoke between axially opposed ends of the yoke; and

a plurality of electromagnetic valves abreast installed in the yoke in such a manner that the yoke constitutes outside magnetic paths of solenoid coils of the valves,
wherein each solenoid coil has terminal members that project outward from the yoke through the slit, and
wherein the terminal members of every pair of the electromagnetic valves, which face each other with respect to the longitudinal axis of the yoke, are arranged close to one another and face one another.

As hereafter explained, no combination of Heise, Tamaoki, and Staib teaches or suggests such an antilock brake system.

As previously discussed with respect to claim 1, Heise, Tamaoki, and Staib fail to teach or suggest terminal members of every pair of the electromagnetic valves that: (a) upwardly extend through a common slit in an upper wall of a yoke; (b) “face each other with respect to the longitudinal axis of the yoke”; and (c) “are arranged close to one another and face one another.” As claim 20 also recites these limitations, the aforementioned arguments that were previously set forth with respect to claim 1 are equally applicable to claim 20.

For at least the aforementioned reasons Heise, Tamaoki, and Staib (standing alone or combined), fail to teach or suggest at least the above-italicized limitations of claim 20. Accordingly, no combination of Heise, Tamaoki, and Staib can be used to reject claim 20 under 35 U.S.C. § 102(b) and, therefore, a withdrawal of the rejection of claim 20 under § 102(b) is both warranted and earnestly solicited.

4. New Claims 21-26

New claims 21-26 depend from claims 1, 14, and 20. Accordingly, each of these new dependent claims is allowable for at least the same reasons as claims 1, 14, and 20, without regard to the other patentable limitations recited therein. An allowance of claims 21-26 is, therefore, respectfully requested.

CONCLUSION

For the aforementioned reasons, claims 1-7 and 9-26 are now in condition for allowance. A Notice of Allowance at an early date is respectfully requested. The Examiner is invited to contact the undersigned if such communication would expedite the prosecution of the application.

Respectfully submitted,

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THE COMMISSIONER IS HEREBY AUTHORIZED TO CHARGE ANY ADDITIONAL FEES WHICH MAY BE REQUIRED REGARDING THIS APPLICATION UNDER 37 C.F.R. §§ 1.16-1.17, OR CREDIT ANY OVERPAYMENT, TO DEPOSIT ACCOUNT NO. 19-0741. SHOULD NO PROPER PAYMENT BE ENCLOSED HERewith, AS BY A CHECK BEING IN THE WRONG AMOUNT, UNSIGNED, POST-DATED, OTHERWISE IMPROPER OR INFORMAL OR EVEN ENTIRELY MISSING, THE COMMISSIONER IS AUTHORIZED TO CHARGE THE UNPAID AMOUNT TO DEPOSIT ACCOUNT NO. 19-0741. IF ANY EXTENSIONS OF TIME ARE NEEDED FOR TIMELY ACCEPTANCE OF PAPERS SUBMITTED HERewith, APPLICANT HEREBY PETITIONS FOR SUCH EXTENSION UNDER 37 C.F.R. § 1.136 AND AUTHORIZES PAYMENT OF ANY SUCH EXTENSIONS FEES TO DEPOSIT ACCOUNT NO. 19-0741.